PREADYPORT BCRP

A NOVEL READY-TO-USE SYSTEM FOR IN VITRO DRUG TRANSPORTE EVALUATION

ReadyCell and **SOLVO Biotechnology** introduce **PreadyPort™-BCRP**

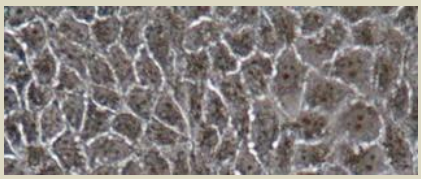
Membrane transporters can be major determinants of the pharmacokinetic, safety and efficacy profiles of drugs. Monolayer assays using transfected MDCKII-BCRP (ABCG2) cells have been widely recognized tools, acknowledged by the ITC[1], to study the interaction of drugs with the BCRP transporter. This system is suitable for performing both inhibition and substrate assessments. MDCKII-BCRP is often used to model the net transport events of important fluid compartment barriers in the organism that express BCRP at a high level. BCRP transporter is present in the blood-brain-barrier, intestine, liver, kidney, testis, and mammary tissue.

PreadyPort™-BCRP Kits contain 24-insert integrated plates with differentiated MDCKII cells expressing BCRP, as well as the parental cell line. The innovative shipping medium, developed and patented by ReadyCell™, preserves the properties of the barrier throughout transportation.

After the introduction of PreadyPort™-MDR1, the second member of the PreadyPort™ series, the PreadyPort™-BCRP Kit, is revolutionary in providing a ready-to-use tool for MDCKII-BCRP monolayer assays. The kit will allow researchers to perform BCRP interaction studies on monolayers without bothering about cell-line licensing and culturing.

PreadyPort™-BCRP Applications

- BCRP substrates assessments (direct transport studies)
- BCRP inhibition assessment (drug-drug interactions)
- Models the net transport events of barriers like the human blood-brain-barrier and the intestine



MDCKII cell monolayer

PreadyPort™-BCRP Features

- Available on demand
- Ready-to-use.
- User-friendly and easy-handling system
- Adaptable to automation
- Transporter experiments without in house cell propagation
- Transporter experiments without in house cell line development, or acquisition

PreadyPort™-BCRP Benefits

- Differentiated MDCKII-BCRP barrier (11 day system)
- Flexibility: The Kit can be used up to 7 days after reception.
- 24 insert-integrated plate format
- Up to 4 days of transportation and storage at room temperature in proprietary shipping medium
- Shipping medium is easy to remove after liquefaction at 37 °C
- Sample Assay Protocol and Plate Layouts
- Available under a Limited Single-use License without extra charge

[1]The International Transporter Consortium. *Membrane transporters in drug development*. Nature Rev. (2010) 9:215-236

Description	ReadyCell™	Solvo Biotechnology
PreadyPort™-BCPR: MDCKII-BCRP cells on **24-insert well plate**	KRECE-BCP01	SB-PP-BCRP-24TW
PreadyPort™-CTRL: MDCKII parental cells (CTRL) on **24-insert well plate**	KRECE-CTR01	SB-PP-CTRL-24TW
PreadyPort™-BCRP/CTRL: 50% BCRP - 50% CTRL cells on **24-insert well plate**	KRECE-BCP02	SB-PP-BCRP-mix-24TW

READYCELL
easing your screening

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ISO 9001:2008

PreadyPort™ is a product manufactured in compliance with ISO 9001:2008

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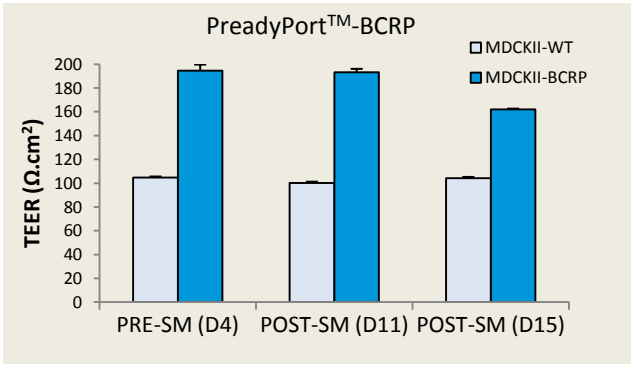
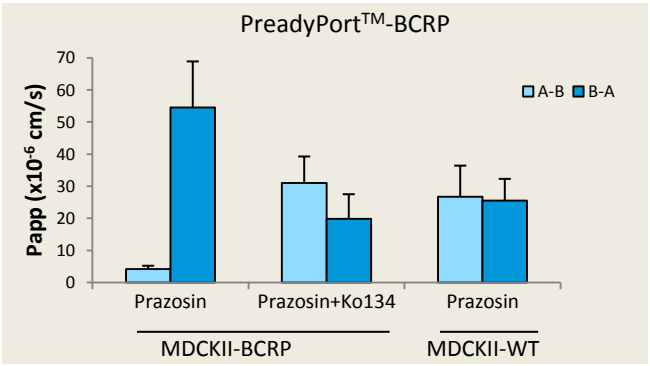
Experimental Data:

Stability of PreadyPort™-BCRP Barrier Properties after Shipment



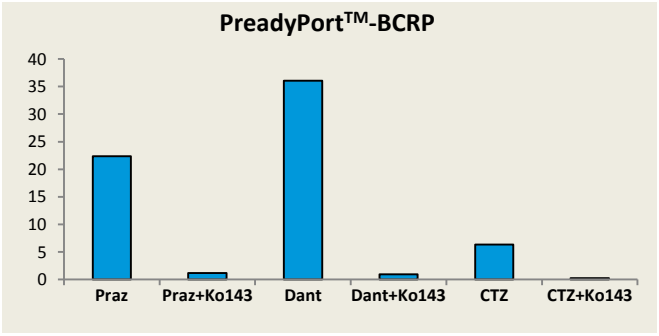
Immobilization was maintained for 4 days at room temperature. The shipping medium was then removed and TEER was measured after 3 (D11) and 7 (D15) standard culture conditions. Results represent the average of 3 independent experiments

Functional Stability of PreadyPort™-BCRP during Shipment

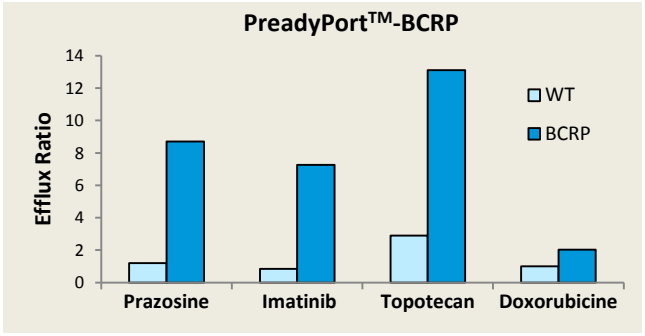


BCRP-mediated Prazosine transport was determined using the PreadyPort™-BCRP kit at day 12 of culture. Ko134 was used as specific BCRP inhibitor. Results are expressed as the average of 3 independent experiments

Efflux Ratio Values for Known BCRP Substrates and Inhibitors



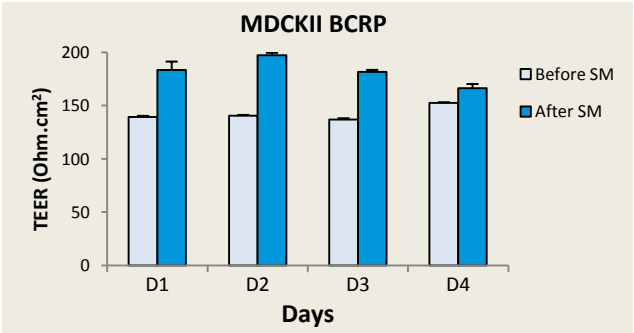
Results of different efflux ratio values for different substrates with or without Ko134 specific BCRP inhibitor

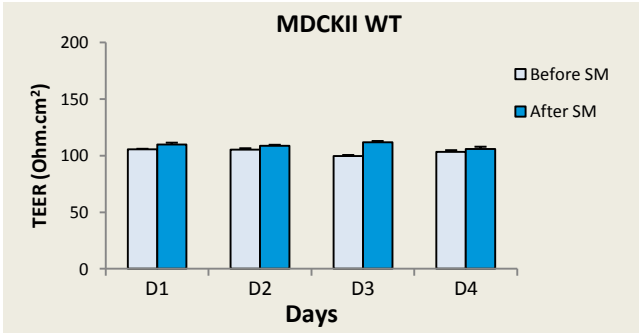


Results of different efflux ratio values obtained in collaboration with Sienna Biotech

SIENABIOTECH

Stability of PreadyPort™-BCRP Barrier Properties under Shipping Conditions





The barrier stability of the PreadyPort™1aa-BCRP Kit during shipping and storage is presented above. The 3-day MDCKII-WT and BCRP monolayers were maintained in shipping medium for 1, 2, 3, and 4 days, then their barrier status was evaluated by TEER (trans-epithelial electrical resistance) measurement before applying and 24 hours after removing the shipping medium. The cell monolayers showed no changes in barrier properties up to 4 days in shipping medium. These results indicate that PreadyPort™-BCRP can be stored and transported at room temperature up to 4 days without loss of its barrier functions.

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